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control system for drive feed equipment by which, even when an actual pitch difference or temperature difference exists between feed screw mechanisms, it is possible by matching the feeds to keep a positioning accuracy of a movable body and prevent overloading the motors, such that this can be achieved in both of a semi-closed system and a full-closed system, and in the case of a full-closed system, it is unnecessary to employ multiple scales.

To achieve the object, according an aspect of the invention, there is provided a position control method for feed drive equipment in which a plurality of feed drive mechanisms disposed in parallel for feeding a movable body are individually driven by servo motors, the position control method comprising: detecting torque of the servo motors, and correcting position commands of the servo motors in dependence on the detected torque so that the servo motors have matching torque.

To achieve the object, according another aspect of the invention, there is provided a position control system for feed drive equipment in which a plurality of feed drive mechanisms disposed in parallel for feeding a movable body are individually driven by servo motors, the position control system comprising: a controller for detecting torque of the servo motors, and correcting position commands of the servo motors in dependence on the detected torque so that the servo motors have matching torque.

BRIEF DESCRIPTION OF THE ACCOMPANYING DRAWINGS

The above and further objects and novel features of the present invention will more fully appear from the following detailed description when the same is read in conjunction with the accompanying drawings, in which:

Fig. 1 is a block diagram of a position control system according to a first embodiment of the invention;

Fig. 2 is a block diagram of a position control system according to a second embodiment of the invention;

Fig. 3 is a block diagram of a position control system according to a third embodiment of the invention; and

Fig. 4 is a perspective view of a tooling machine equipped with a position control system according an embodiment of the invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

There will be detailed below the preferred embodiments of the present invention with reference to the accompanying drawings. Like members are designated